

A NEW SPECIES OF *SERENIUS* GUINOT 1976, (CRUSTACEA :  
DECAPODA : XANTHIDAE) FROM ANDAMANS

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ABSTRACT

A new species, *Serenius andamanicus* is described and its affinities with related forms are discussed.

INTRODUCTION

The family xanthidae is well represented in the seas around India and Andaman Is., while observing the old unnamed collection of crabs lying in the Crustacea Section of Zoological Survey of India, I came across with 10 interesting examples collected from Andamans. The crabs seem to be so far undescribed. In the present paper these specimens are described as a new species under the genus *Serenius* and its relationships with the other three allied species are discussed.

Genus *Serenius* Guinot

*Serenius* Guinot, 1976 : 272.

*Zozymus* Dana 1852 : 77 ; Alcock 1898 : 103 ; Odnher 1925 : 83 ; Sakai 1939 : 450 ; Sankarankutty 1962 : 124.

*Zosimus* Buitendijk 1960 : 284 ; Guinot 1967 : 560-561 ; 1969 : 238-239 ; 1971 : 1071.

Type species : *Zozymus pilosus* A. Milne Edwards 1867.

*Generic characters* : Crabs of this genus are rather small in size. Carapace broadly

oval, strongly convex antero-posteriorly and moderately so from side to side. Anterior two thirds of carapace divided into regional lobules by broad, deep grooves. The surface of these carapace lobules, posterior third of carapace and often under surfaces of carapace as well as outer surfaces of chelipeds are closely covered with flat topped, confluent granules of different sizes. Short, light to deep brown coloured fur present on the grooves between the lobules and on intergranular spaces, but the textural pattern is very clearly visible. Front bilaminar, deflexed, outer corner of each lobe well pronounced.

Antero-lateral sides of carapace long, convex, carinated, crest like and divided by sutures into four, broad shallow, entire lobes, including the outer orbital corner.

Chelipeds unequal, only the upper edge of arm cristiform, fingers with broad, hollowed out tips. Leg joints merus, carpus, propodus are sharply cristiform on their anterior edges and compressed laterally. Abdomen of male five jointed, 3rd-5th joints fused, but sutures are visible. Anterior male

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PLATE III

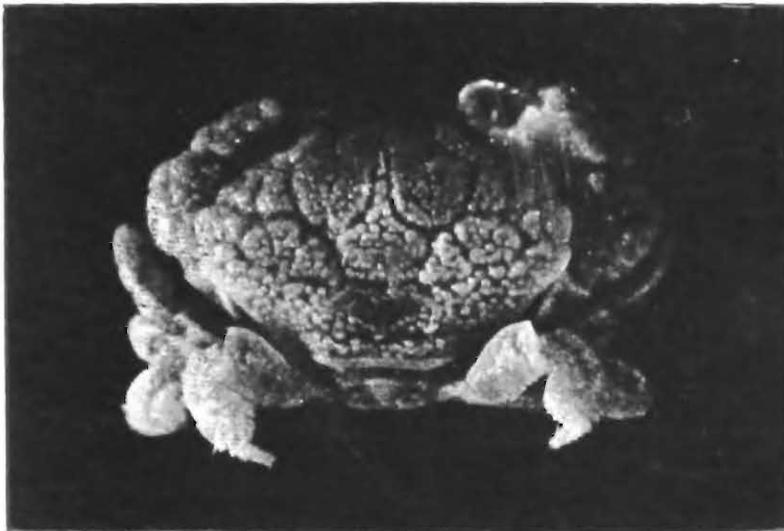


Fig. 1. *Serenius andamanicus* Deb.

pleopod quite thick, adorned with subdistal, plumose, bristles, with incurved apex.

Freshly preserved crabs are brick red to orange in colour, which has vanished in long spirit-preserved specimens.

The genus is Indo-Pacific in distribution.

*Remarks* : The genus *Serenius* Guinot is different from *Zosimus* in having its well demarcated surface lobules of carapace covered with granules and hairs present in between the inter granular and inter lobular spaces. The genus *Actaea*, another allied genus is also different from the *Serenius* in not having the crested antero-lateral sides and interior edges of leg joints and arms of chelipeds.

DECAPODA : HYPEROLISSA : XANTHIDAE

1. *Serenius andamanicus* sp. nov.

(Pl. III, Fig. 1.)

*Material* : 1 female Holotype. Width : 13.5 mm ; Length : 8 mm Z.S.I. Regd. No. C 2943/2 ; 2 males paratypes ; W : 10 mm ; L : 6 mm, Regd. No. C 2944/2, from Chria Tapu, South Andamans, coll. Mr. B. P. Halder, dt. 24. 5. 1978.

1 male and 1 female paratypes from Corbyns Cove, North Andaman, Reg. No. C 2950/2, Collected by S. W. Kemp on 25. 2. 1915. Five exs. are present from Andamans, collected at different times, by Museum collectors.

*Description to female* : Small crab with broadly oval carapace which is moderately convex in both the directions. Regions and subregions are well marked by deep broad grooves into lobules. The lobules are flat and covered with granules, which are also flat and are of different sizes. The grooves covered with short, dark-brown hairs which are of light-brown colour in male.

All the lobules of carapace viz. 1M, 2M, 3M ; 1L-6L are distinct. Antero-lateral sides sharp, crested, cut into four rounded, broad, shallow, lobes, including outer orbital angle. Postero-lateral sides shorter than the antero-lateral and convergent. Front bilaminar, vertically deflexed, outer corner separated from inner supra-orbital lobe by a notch. Inner-infra-orbital corner toothed. Antenna stands on the orbital hiatus, antennules transversely fold. Merus of external maxilliped broader than long, its anterior edge slightly oblique.

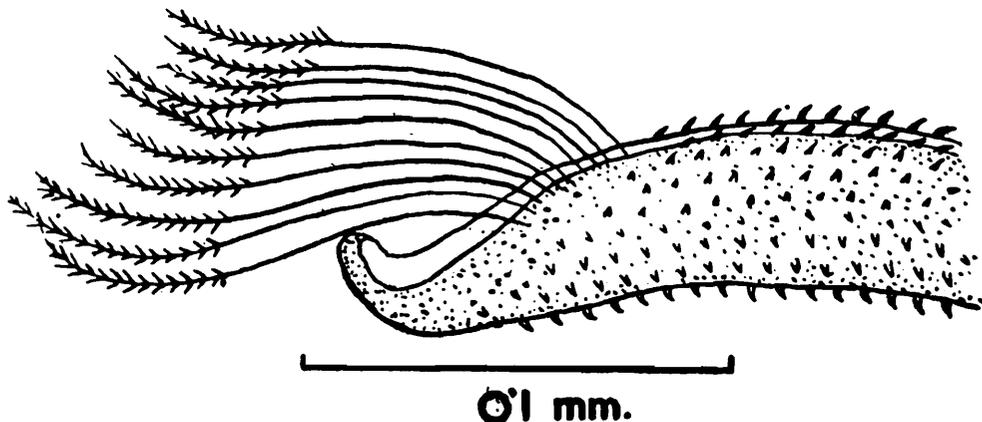


Fig. 1. Anterior male pleopod

Chelipeds sub-equal upper edge of arm sharp, crested, very high, distal end cut into a lobe, surfaces of arm almost smooth. Inner corner of wrist prominent, outer side covered with flat confluent granules. Palm covered with larger granules on outer side and finer, minute one's on inner side. A row of longitudinally arranged granules present medially on the outer-side of palm. Fingers short, curved and sharply granular basally : cutting edges dentate and leaves a narrow gap when apposed ; tips of fingers broad and hollowed out. Fingers blackish brown in colour ; in male the colour is more darker and involved into the lower edge of palm, almost upto the proximal end. Leg joints, except dactylus, are compressed, sharply crested anteriorly, upper side markedly granular and sparsely hairy. Apical claw of dactylus brown coloured. Male abdomen five segmented, 3-5 somites fused. Anterior male pleopod slightly curved process, ciliary groove open apically, apex spooned and slightly curved inward. Inner subapical region adorned with a cluster of long setae and outer side armed with spinules which continued below towards the middle of the process.

Freshly preserved specimens are bright orange to red in colour. Fingers light brown in female and dark brown in male, which involved in lower side of palm in male only.

*Remarks* : The specimens of *Serenius andamanicus* Deb are very near to the *Serenius demani* (Odhner, 1925), but the following differences separates them viz. the shape of carapace and chelipeds. Anterior male pleopod, their apexes not exactly alike each other. The photo plate of *S. demani* and its text-figure for male pleopod clearly indicate

their differences and lastly Dr. Guinot, of Paris Museum is also of the opinion that it is a new species belongs to *Serenius* but not in *Zosimus*.

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